



## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>PF030041</b>	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. <b>PCT/EP2004/003469</b>	International filing date (day/month/year) <b>01.04.2004</b>	Priority date (day/month/year) <b>17.04.2003</b>
International Patent Classification (IPC) or national classification and IPC		
Applicant <b>THOMSON LICENSING</b>		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.	
2. This REPORT consists of a total of <b>11</b> sheets, including this cover sheet.	
3. This report is also accompanied by ANNEXES, comprising:	
a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:	
<input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).	
<input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.	
b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).	
4. This report contains indications relating to the following items:	
<input checked="" type="checkbox"/> Box No. I	Basis of the report
<input type="checkbox"/> Box No. II	Priority
<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/> Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/> Box No. VI	Certain documents cited
<input type="checkbox"/> Box No. VII	Certain defects in the international application
<input type="checkbox"/> Box No. VIII	Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

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Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
    - ☐ international search (Rule 12.3 and 23.1(b))
    - ☐ publication of the international application (Rule 12.4)
    - ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):
  - ☐ the international application as originally filed/furnished
  - ☒ the description:
    - pages 1-11 \_\_\_\_\_ as originally filed/furnished
    - pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
    - pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
  - ☒ the claims:
    - nos. 1-10 \_\_\_\_\_ as originally filed/furnished
    - nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19
    - nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
    - nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
  - ☒ the drawings:
    - sheets 1/4-4/4 \_\_\_\_\_ as originally filed/furnished
    - sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
    - sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
  - ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
  - ☐ the description, pages \_\_\_\_\_
  - ☐ the claims, nos. \_\_\_\_\_
  - ☐ the drawings, sheets/figs \_\_\_\_\_
  - ☐ the sequence listing (*specify*): \_\_\_\_\_
  - ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
  - ☐ the description, pages \_\_\_\_\_
  - ☐ the claims, nos. \_\_\_\_\_
  - ☐ the drawings, sheets/figs \_\_\_\_\_
  - ☐ the sequence listing (*specify*): \_\_\_\_\_
  - ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

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**Box No. V** Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	2-7	YES
	Claims	1, 8-10	NO
Inventive step (IS)	Claims	2-7	YES
	Claims	1, 8-10	NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims		NO

## 2. Citations and explanations (Rule 70.7)

1. In the present report, reference is made to the following documents:

D1: EP 1 202 497 A (TOKYO SHIBAURA ELECTRIC CO)  
2 May 2002 (2002-05-02);

D2: EP-A-1 246 400 (THOMSON LICENSING SA)  
2 October 2002 (2002-10-02).

2. INDEPENDENT CLAIM 1

- 2.1 The present application does not fulfil the requirements set forth in PCT Article 33(1) because the subject matter of claim 1 does not comply with the requirement of inventive step defined in PCT Article 33(3).

Document D1, which is considered to be the prior art closest to the subject matter of claim 1, describes (the references between parentheses apply to said document):

a transmission method (penultimate sentence in

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paragraph 24) for transmitting reset messages from a bus (B1 in figure 2), via a transparent bridge (bus bridge 31 in figure 10), to other buses (B2 in figure 2; paragraphs 16-17 indicate the possibility of there being a plurality of other buses) connected (figure 2) to said first bus by means of said bridge, which method is carried out on a bridgehead ("apparatus N1", see last sentence in paragraph 12) connected (last sentence in paragraph 12) to said bus and said transparent bridge, wherein, during a series of reset messages (bus resetting in line 33 in paragraph 24), said bridgehead (N1) selects (verification of the conditions "during authentication processing" and "if a node apparatus of an authentication processing's party is situated on a different bus via the bus bridge" in paragraph 24) intermediate reset messages ("AKE notify command" in paragraph 30, i.e. "bus reset signal R" in paragraph 24) which it transmits to the other buses interconnected by means of said bridge.

- 2.2 The subject matter of claim 1 differs from the subject matter disclosed in D1 in that the bridgehead is connected to a network that provides the transparent bridge, rather than to a transparent bridge apparatus.

The problem that the present invention is intended to solve can therefore be considered to be that of

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overcoming the need for the various buses to form a single assembly connected by wires in a single location.

2.3 The feature whereby a network provides the transparent bridge is described in document D2 (D2, paragraphs 14-16). This feature in document D2 leads to the same effect of remotely connecting the buses and, as a result, solves the same problem as the present application.

2.4 It would be obvious for a person skilled in the art, seeking to arrive at the same result, to use this feature with a corresponding effect in the method as per document D1 and thereby arrive at the method as per claim 1.

2.5 It follows that the subject matter of claim 1 does not involve an inventive step (PCT Article 33(3)).

3. As far as the interpretation of claim 1 is concerned, it should be noted that said claim is not clear because the wording thereof does not enable a person skilled in the art to determine the following:

- (i) whether there is one other bus or a plurality of other buses because, in the French text, the wording "à d'autre bus" is unclear because "d'" indicates the plural, "autre" indicates the singular while "bus" does not allow any distinction to be made between the singular and the

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- plural. Examples of clear wording would be "à un autre bus" (to one other bus), "à d'autres bus" (to other buses) and "à un ou plusieurs autres bus" (to one or more other buses);
- (ii) whether the "transparent bridge" consists of an apparatus, as the notion of a "bridge" and even a "transparent bridge" known to a person skilled in the art would appear to indicate, or whether it consists of a network as the expression "to the network that provides said transparent bridge" would appear to suggest. An example of clear wording would be "a bridgehead connected to the bus and the transparent bridge"; and
- (ii) the meaning of the expression "intermediate reset message" and whether said expression encompasses a more restricted category of message than the "reset messages". Indeed, in claim 3, it appears that the "intermediate reset messages" are, in fact, "reset messages".

#### 4. INDEPENDENT CLAIM 9

- 4.1 The present application does not fulfil the requirements set forth in PCT Article 33(1) because the subject matter of claim 9 does not comply with the requirement of novelty defined in PCT Article 33(2).

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Document D1 describes (the references between parentheses apply to said document):

an apparatus ("bus bridge apparatus 31" in figure 10) comprising a network interface ("41" in figure 10) connected to a bus and a network interface ("42" in figure 10) connected to another network, which apparatus is provided with selective transmission means (verification according to the last sentence in paragraph 29) for selectively transmitting the reset messages ("AKE notify command" in paragraph 30, i.e. "bus reset signal R" in paragraph 24) from said bus.

5. As far as the interpretation of claim 9 is concerned, it should be noted that said claim is not clear:

- (i) it is impossible for a person skilled in the art to determine whether the expression "selective transmission means" refers to transmission to the bus or to the "other networks";
- (ii) it is impossible for a person skilled in the art to determine on what basis the "selective transmission means" are, in fact, selective; and
- (iii) reference is made to "other networks", yet no first network has been mentioned.

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6	<p>DEPENDENT CLAIMS 8 AND 10</p> <p>These claims do not contain any features which, in combination with the features of any one of the claims to which they refer, fulfil the PCT requirements of novelty and inventive step (PCT Article 33(2) and 33(3)).</p>
7.	<p>DEPENDENT CLAIMS 2, 4 AND 6</p> <p>The combination of features in claims 2, 4 and 6, respectively, is not found in the prior art and cannot be derived in an obvious manner therefrom, for the following reasons:</p> <p>7.1 The prior art documents do not mention or suggest the use of the following: changes in the direction of evolution of the number of nodes in the network, a selection based on variations in said number or an equivalent concept. Nor do said documents mention the corresponding problem of preventing network inefficiency caused by bus resetting actions performed too closely together in time.</p> <p>7.2 The prior art documents do not mention or suggest a selection based on the use of a topology method or an equivalent concept or the corresponding problem of preventing network inefficiency caused by bus resetting actions performed too closely together in time. In particular, nothing would prompt a person skilled in the art to use the</p>



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topology methods mentioned in paragraphs 31-32 in document D2 to perform the selection.

7.3 The prior art documents do not mention or suggest a disconnection simulation or an equivalent concept or the corresponding problem of preventing the development of apparatuses that react specifically to a new message in order to trigger resetting of the other bus. In particular, the use of a known message indicated in paragraph 30 ("existent AKE command") in document D1 does not allow the other bus to be reset.

8. As far as the interpretation of claim 4 is concerned, it should be noted that said claim is not clear because the wording thereof does not enable a person skilled in the art to determine whether the expression "the network" relates to the bus, all of the buses or even to the "network that provides said transparent bridge". Clear wording would use coherent terminology, for example, "the network consisting of said bus and said one or more other buses".

9. DEPENDENT CLAIMS 3, 5 AND 7

These claims are dependent on claims that have novel and inventive subject matter. As a result, they also fulfil the requirements of PCT Article 33(1).

10. Claim 3 is not clear because a person skilled in

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the art is unable to determine from the wording of said claim whether "the intermediate reset message" is "the reset message". Clear wording would use coherent terminology, i.e. "reset message".

11. As far as the interpretation of claim 5 is concerned, it should be noted that said claim is not clear because a person skilled in the art is unable to determine from the wording of said claim to which "intelligent method" reference is being made. Indeed,
- (i) no "intelligent method" has been previously mentioned";
  - (ii) two "methods" have been previously mentioned: "the method as per claim 4" and "a predetermined method for the network recognition step subsequent to resetting";
  - (iii) the "method as per claim 4" does not provide any results to be stored and does not, therefore, appear to be the intelligent method to which reference is being made; and
  - (iv) the "predetermined method for the network recognition step subsequent to resetting" is, according to claim 4, a method that provides a result when it is applied to a topology. The intelligent method,

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however, provides only one result when it is applied to two topologies, for example, the "result of said intelligent method, which is applied to the initial topology and the new topology". It is unclear how a person skilled in the art would be able to compare a method that provides a result having two "topology" parameters with a method that provides a result having a single "topology" parameter.

12. As far as the interpretation of claims 5 and 7 is concerned, it should be noted that said claims are not clear because the expression "reset message" is replaced from time to time with the term "reset" and is not, therefore, used coherently.